

Work Order ID 60251

Tuesday, June 29, 2010 3:50:35 PM

Page 1

Item ID: D3302-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Doubler

Start Date: 6/29/2010 Start Qty: 4.00

Cust Item ID:

Required Date: 7/6/2010 Req'd Qty: 4.00

Customer:

Reference:

Run Start

Approvals: Process Plan: *[Signature]*

Date: *10-6-29* Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3302

Rev B2

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3302 ☒ Dwg Rev: *B2* ☐ Prog Rev: *B2* ☐ 2-
Deburr if necessary

6061 . 063

B 10-7-29

(4)

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

B 10-7-29

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

8/10/07/29

(+4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  Small Fab	Small Fab	0.00							
Small Fab	Memo	0.00							
Small Fab	Deburr break all unmarked sharp edges 0.005 to 0.010								
140  Brake NC	NC BRAKE	0.00							
Brake NC	Memo	0.00							
Brake NC	Form as per Dwg D3302								
150  QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.00							

N/A

8/10/03/04

Sidos/04

4

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Page 3

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Required Date: 7/6/2010 Req'd Qty: 4.00

Customer:




Reference:

Run Start

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00	<i>M</i>	<i>10/08/05</i>		<i>x4</i>	<i>0</i>		
170  QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				<i>4</i>	<i>0</i>	<i>108-5</i>	
180  Packaging Packaging	Identify as per dwg & Stock Location: <i>113</i> Memo	0.00 0.00				<i>10/8/6</i>	<i>0</i>	<i>108-5</i>	<i>QW SP</i>

W/O:		WORK ORDER CHANGES						
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NOTE: Date & initial all entries

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Tuesday, June 29, 2010 3:50:35 PM

Page 4

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Item Name: Doubler

Start Date: 6/29/2010 Start Qty: 4.00

Cust Item ID:

Required Date: 7/6/2010 Req'd Qty: 4.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/08/09 *AF**mf*
10-8-06

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

Tuesday, June 29, 2010 3:50:39 PM

Page 1

Work Order ID: 60251



Parent Item: D3302-1



Parent Item Name: Doubler

Start Date: 6/29/2010

Required Date: 7/6/2010

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev: ☐ A ☐ 04.09.02 ☐ New issue ☐ KJ/JLM ☐
IPP Rev: B Now on Waterjet 07-06-25 JLM ☐

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	----------------	--------------	---------------	----------------	--------

M6061T6S.063

Purchased

No

100

sf

121.1500

0.7708

3.245474



6061-T6 .063 Sheet



1810-7-29

Location

Loc Qty

Loc Code

MAT21

121.15

113608

121.15

113608

④

W/O:		WORK ORDER CHANGES						
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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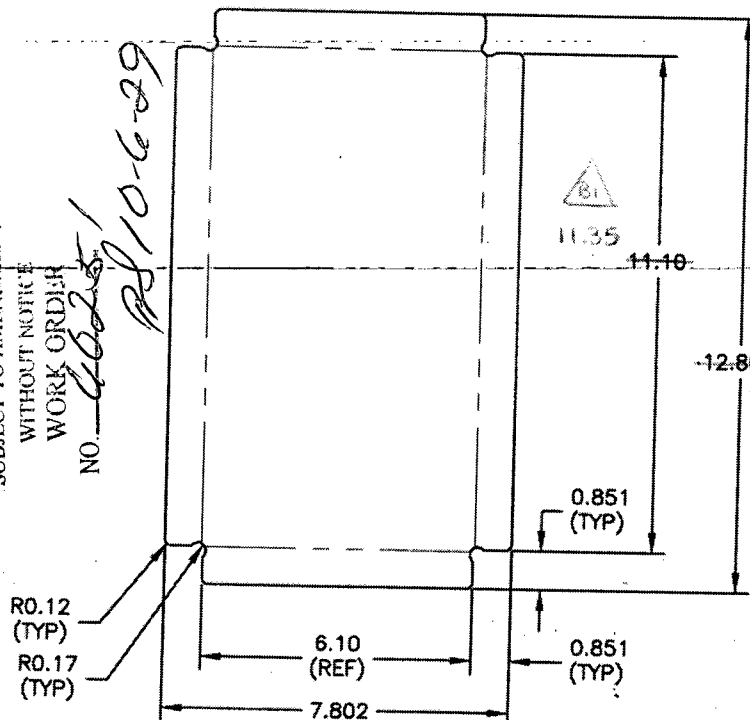
NOTE: Date & initial all entries



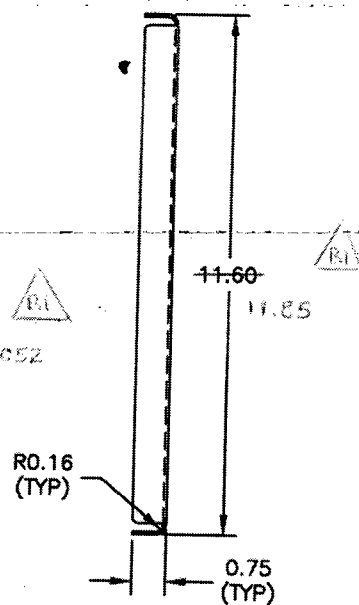
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CHECKED #	APPROVED #	DRAWING NO. D3302	REV. B SHEET 1 OF 4
DATE 04.11.18		TITLE DOUBLER	SCALE 1:4
A	04.07.06	NEW ISSUE	
B	04.11.18	REMOVE HOLES	
B1	04.12.15	ADDED 0.25" TO THE LENGTH FOR -1/-3	
B2	05.03.21	7.25 WAS 7.34; 8.952 WAS 9.042; 7.75 WAS 7.84 FOR D3302-3	

RELEASED
04.11.23

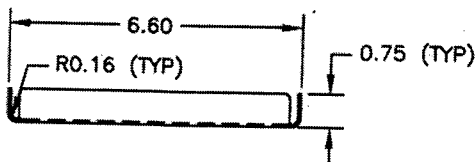
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 60251
PS/10-6-29



D3302-1 FLAT PATTERN



D3302-1 DOUBLER
BEND DETAIL



D3302-1 NOTES:

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

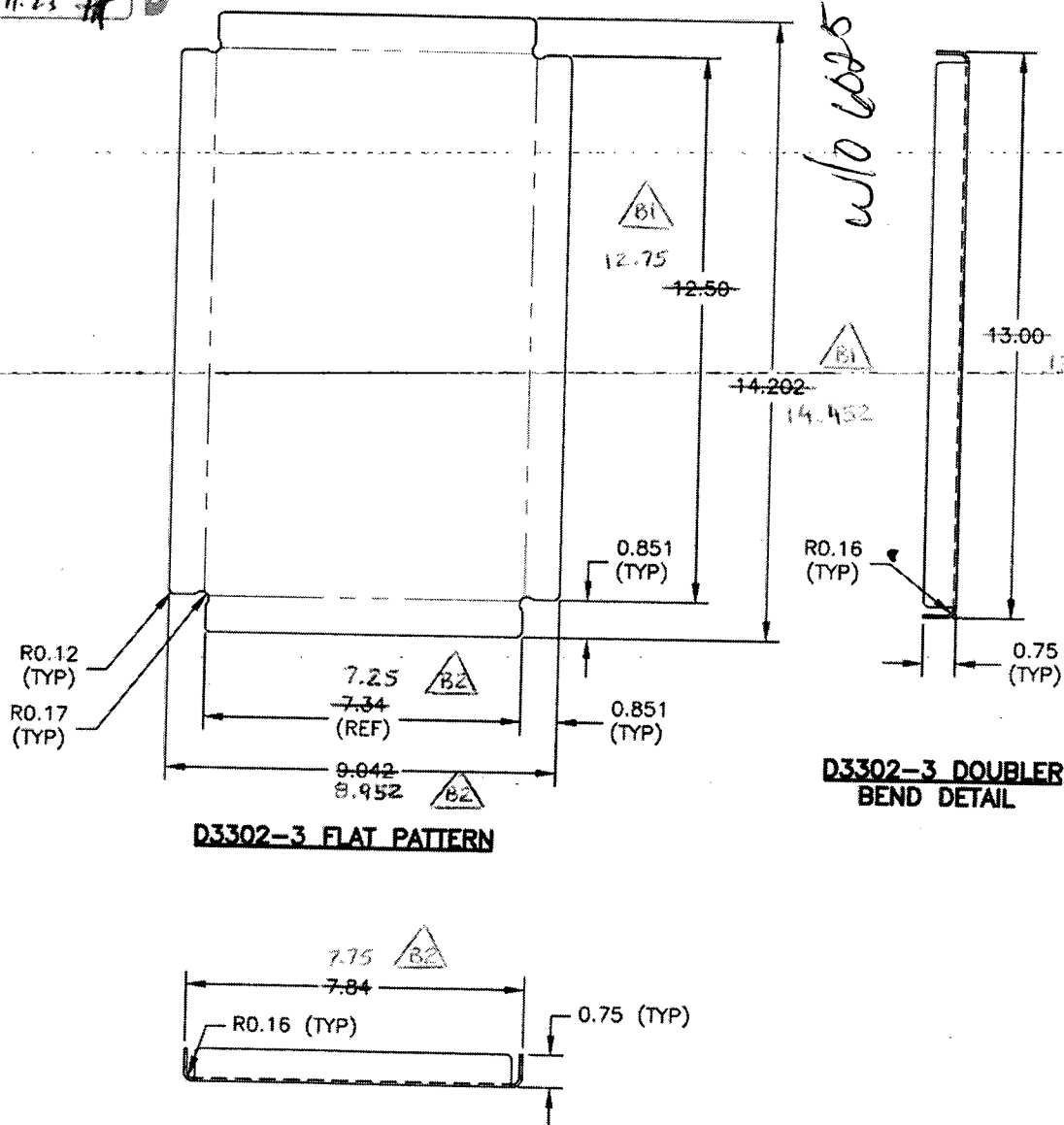
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3302	REV. B SHEET 2 OF 4
DATE 04.11.18		TITLE DOUBLER	SCALE 1:4

RELEASED
04.11.23 #



D3302-3 NOTES:

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & BATCH USING FINE POINT PERMANENT MARKER

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

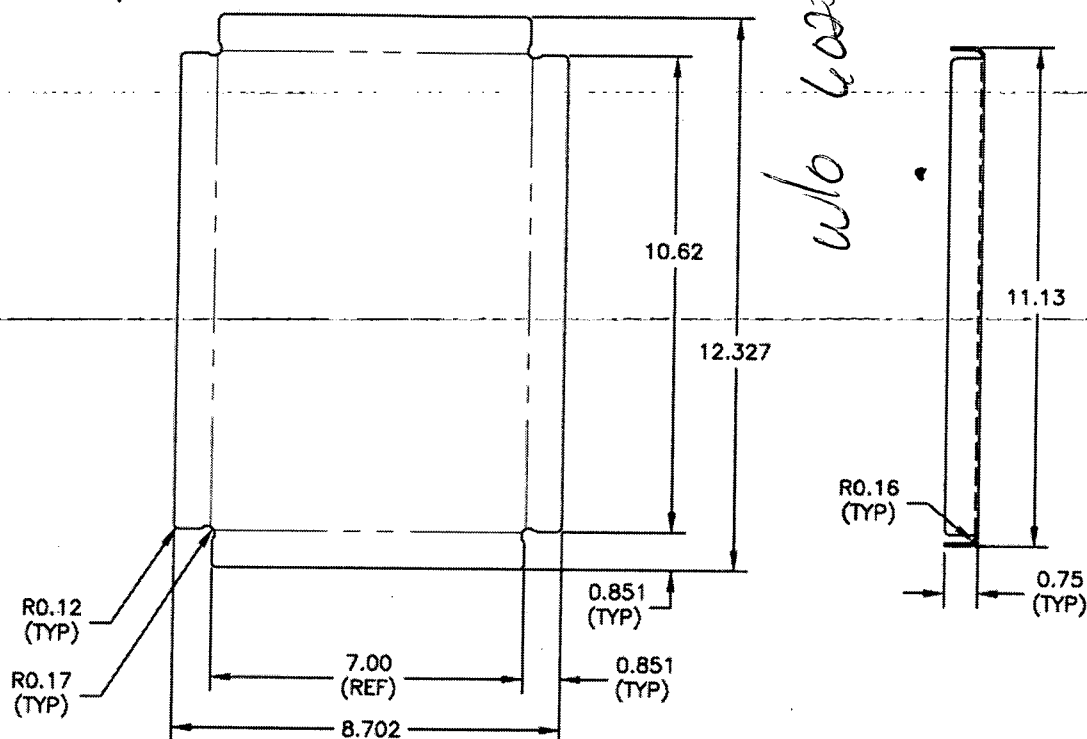
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



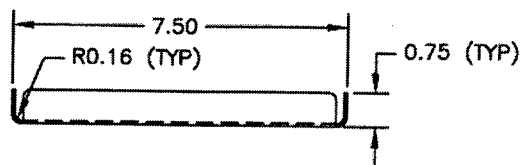
DESIGN FE	DRAWN BY FE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3302	REV. B SHEET 3 OF 4
DATE 04.11.08	TITLE DOUBLER		SCALE 1:4

RELEASED
04.11.23 [Signature]



D3302-5 FLAT PATTERN

**D3302-5 DOUBLER
BEND DETAIL**



D3302-5 NOTES:

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

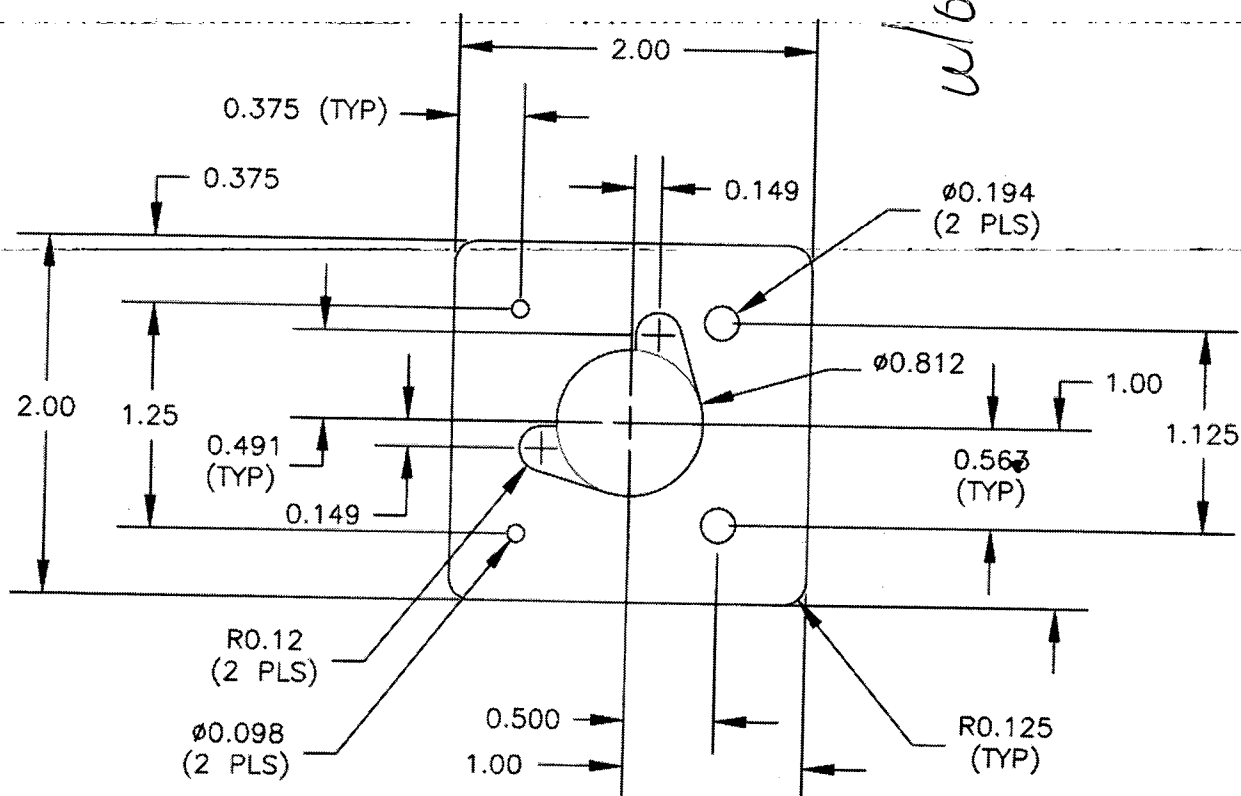
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3302	REV. B SHEET 4 OF 4
DATE 04.11.18		TITLE DOUBLER	SCALE 1:1

RELEASED
04.11.23



D3302-7

D3302-7 NOTES:

- 1) MATERIAL: 5052-H32 OR 6061-T6 (QQ-A-250/8 OR QQ-A-250/11)
0.040 THICK (REF. DART SPEC. M5052H32S.040)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

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Dart Aerospace Ltd

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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